

CONCENTRATES

OREGANGUE

UNIVERSITY  
OF

SASKATCHEWAN



1964



1966







- 2 -

## PRESIDENT'S MESSAGE, 1964-65

The 1964-65 term was a very busy one for the Ore Gangue. Because the "Concentrates" was not published in 1965, this "message" is mainly a report of the Ore Gangue activities during the 1964-65 term.

In November 1964, the first "Graduates Booklet" was printed. All the potential graduates and post-graduate students were introduced to potential employers. The book was very successful in achieving its purpose. It is hoped that it will be published next year, even though it did not go to press this year.

The annual Fall Banquet was a stag faculty-student get-acquainted evening. We were fortunate in obtaining an extremely interesting speaker, Professor Kennedy of the English Department. His topic, "The Role of the Fort in Shakespeare", was very thought-provoking! A bowling party completed the entertainment side of the autumn Ore Gangue activities.

In January, a curling party initiated the second-term activities. Then, in February, the largest single project the Ore Gangue has probably ever undertaken was successfully concluded. This project, the First Western Inter-University Geological Conference, was initiated in November 1964, and was held on February 13, 1965. The central theme, "The Future of Geology", was very well received by both the speakers and the audience. The keynote speakers were Dr. J. C. Maxwell, Head of the Department of Geological Engineering, Princeton University; and Dr. J. M. Harrison, Assistant Deputy Minister of Mines (Federal). Speakers representing industry were Mr. K. F. Huff, Mr. R. H. Carlyle, Dr. J. C. Sproule, and Dr. E. L. Evans. Student speakers were Mr. G. R. Goldak, and Mr. M. L. Larson.

The conference was organized entirely by members of the Ore Gangue. Students from Manitoba, Montana, and Alberta attended and supported the conference. Finances were supplied by several industrial companies and organizations. (A copy of the proceedings of the conference can be obtained by sending a request to the Ore Gangue President.)

Other second-term activities included a broomball game, with Faculty and Graduate Students playing the Undergraduates. The game resulted in a humiliating defeat (by one goal in overtime) for the Undergraduates.

For the first time in many years the Ore Gangue Spring Banquet was a completely mixed affair. Women, in the form of wives, fiancées, girl friends, and invited guests, were in attendance. The banquet was a testimonial in memory of Professor F. H. Edmunds. President Spinks gave the testimonial address. Mr. J. Anderson-Thomson (the original Ore Gangue treasurer) gave







a very interesting and humorous account of the early Ore Gangue days. Professor Worcester, former Head of the Ceramic Engineering Division, and an original Ore Gangue member, was a special guest for the evening.

Other Ore Gangue activities during the year included a bi-weekly column in the Sheaf (Mr. Jim Stuart was the editor), a photography contest, and the operation of a coffee club used by both faculty and students.

The success of the Ore Gangue activities during 1964-65 reflect the fact that the Ore Gangue can function as both a social and a service club. Unfortunately, as is probably true with most groups, the social functions received far better support than the service functions. A very small number of the 68 Ore Gangue members were responsible for doing most of the service work. Special mention should be made of Bill Gaskarth, Dennis Delorme, Leo King, Hugo Copper, Verne Hogg, Andy Hogg, Jack Park, Bob Berven, and Dave Jordan, all of whom worked very hard to make the Conference a success. Wayne Kipling, Social Chairman; Tony Spooner, Secretary; and Jim Stuart, editor of the newsletter, also worked very hard. The "Concentrates" editor encountered thesis problems and could not complete his responsibilities; the fact that a replacement could not be found is indicative of the average Ore Gangue member's willingness to serve his club.

I am very grateful for the opportunity to have served the Ore Gangue as its President. I hope that future members enjoy their association with the Ore Gangue as much as I enjoyed my term in office.

Photography ..... L. J. Nagy  
Assistant Photographer ..... R. W. Kipling  
Typist .....

- Jack Wyder.

### THE MASK SHOP









ORE GANGUE EXECUTIVE

1965 - 1966

Treasurer ..... L. J. (Larry) Nagy

Secretary ..... R. W. Kipling

Social Convener ..... W. V. (Bill) Smyth

Sports Convener ..... F. M. Wormsbecker

Speaker's Committee ..... R. R. MacIntosh  
B. A. Bintner  
Marilyn Filyk

Concentrates staff: un and fancy (and the learning) that we

Co-Editors ..... Barbara Battiste

memories as you sit alone in your tent in

Cartoons ..... Ray McLean

Cartoons ..... Peter Oliver  
burning down.

Cover ..... A. Petryk

Photography ..... L. J. Nagy

Assistant Photographer ..... R. W. Kipling

Typist ..... Mrs. Sins

And a cast of thousands.









- 3 -

EDITORIAL

This year has been a good year especially for us, the Co-Editors of the 1964-1966 Ore Gangue Concentrates. It is, we think, significant, that we three are not only members of the Ore Gangue, but are also members of the fairer sex. Due to our interest in the sciences of the earth, we have been thrust into a world of men, and have been, we are sure, accepted and welcomed. This is probably the reason that we consider our position as editors a privilege and an honour. The bonds which hold together the Engineers (Geological, Mining, Geophysical), the Artsmen-geologists, and the faculty are strong and friendly, and we are proud to be part of the Department of Geological Sciences, University of Saskatchewan.

We wish to thank all who worked on the yearbook. Almost everyone pitched in, even if just by presenting a helpful suggestion. Thanks especially to typist Mrs. Sins for taking time off her busy hours to do all the typing. And so we hope that this dual Yearbook serves as a good record of the fun and fancy (and the learning) that we all shared this year. We hope it provides you with fond memories as you sit alone in your tent in the middle of nowhere, the rain falling gently outside and pouring down inside through the twenty holes in your motheaten tent, rusting the metal on your geologist's hammer, and the oil in your lamp burning down. Once again, thanks for the co-operation and the best of luck to each one of you, graduates and all.

With sincere best wishes,

Sincerely

Barb, Marilyn,  
Jeanne  
The Editors







ORE PRESIDENT'S MESSAGE SOCIETY  
FINANCIAL REPORT



Dear Fellow Members:

1965-66 has been another year of solid achievement for the Ore Gangue. We inaugurated a Speaker's Program through which speakers were brought in to talk to the membership on subjects of geological interest and afterwards were entertained by the students. The Ore Gangue sent a large delegation to the Second Western Inter-University Geological Conference, and in fact had the greatest number of registered delegates from any university. We expect to do equally well at the next year's conference in Winnipeg.

Socially the year was a success, with the Ore Gangue sponsoring a Bowling Party and a Curling Party, as well as the annual Fall and Spring Banquets. All these functions were thoroughly enjoyed by those who participated. The Ore Gangue hockey team did not have a winning season but both players and spectators obtained much pleasure from the games. A broomball game featuring undergraduates versus faculty-graduate teams is to be held again this year.

I would like to thank my fellows on the executive and the rank and file Ore Gangue membership for their whole-hearted co-operation in Ore Gangue activities this year. Thanks also to Professor Palmer, our staff adviser, and the whole faculty and staff of the Geology Department for their support. I wish the best of fortune to all our members, graduates, graduands and undergraduates in their future endeavours.

With sincere best wishes.

Tony Spooner

Amount Transferred to Ore Gangue Concentrates Fund	75.00
Amount Transferred to Ore Gangue Concentrates Fund	75.00
	150.00
BALANCE IN ACCOUNT	9.31



PRESIDENT'S MESSAGE



Dear Fellow Members: This year has been a good year for the Ore Gangue. We have had a very successful year of solid achievement for the Ore Gangue. We inaugurated a Speaker's Program through which speakers were brought in to talk to the membership on subjects of geological interest and afterwards were entertained by the students. The Ore Gangue sent a large delegation to the Second Western Inter-University Geological Conference, and in fact had the greatest number of registered delegates from any university. We expect to do equally well at the next year's conference in Winnipeg.

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With sincere best wishes,

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ORE GANGUE GEOLOGICAL SOCIETY  
FINANCIAL REPORT

1965-66  
OPERATING FUND

INCOME

Balance from last year .....	\$ 61.28
Membership fees - 44 at \$2.00 ea. ....	88.00
Coffee urn .....	236.33
Football Pool .....	15.25
Petrology Sheets .....	.60
Photo Reprints .....	6.35
	<u>\$407.81</u>

Back Row, L. to R.: F.F. Langford, W.K. Braun, L.C. Coleman, T.E.W. Hind,  
H.C. Wardlaw, K.B.S. Burke, W.C.B. Caldwell, M.R. Stauffer.

EXPENSES L. to R.: B. Wright, A.R. Byers, R.F. Palmer, J. Anderson-Thomson.  
Missing: W.O. Kupsch.

Supplies for Coffee Urn .....	151.54
Subsidize Fall Party .....	28.50
" " Banquet .....	47.16
" Spring Party .....	5.00
" Graduation Banquet .....	5.80
" Photo Contest .....	8.50
Bank Service Charges .....	2.00
	<u>248.50</u>

NET PROFIT ..... 159.31

Amount Transferred to Ore Gangue Geological  
Society Fund ..... 75.00

Amount Transferred to Ore Gangue Concentrates  
Fund ..... 75.00  
150.00

BALANCE IN ACCOUNT ..... 9.31

Back Row, L. to R.: Al Ludwig, Ron McIntosh, Mo Lindsay, Tony Speed, Ron Brown,  
Ken Stathan, Bernie Binstner, Wayne Kipling, Dave Bohm, Dale Bask.  
3rd Row, L. to R.: Ken Bohrson, Bill Smyth, Jim Sharp, Pete Oliver, Ray McLean,  
Barry Finlayson, Darryl Myhr, Gerald Midwell, Joe Korol, Al Steward.  
2nd Row, L. to R.: Bill Caskarth, Momi Hoque, Ross McLean, Jack Wyder,  
Tony Spooner, Jim Popovich, Al Petryk, Frank Wormsbecker, Dwight Streeton.  
Front Row, L. to R.: George Goldak, Jeanne Connason, Marilyn Pilyk, Larry Nagy.



ORE GANGUE GEOLOGICAL SOCIETY  
FINANCIAL REPORT

1965-66

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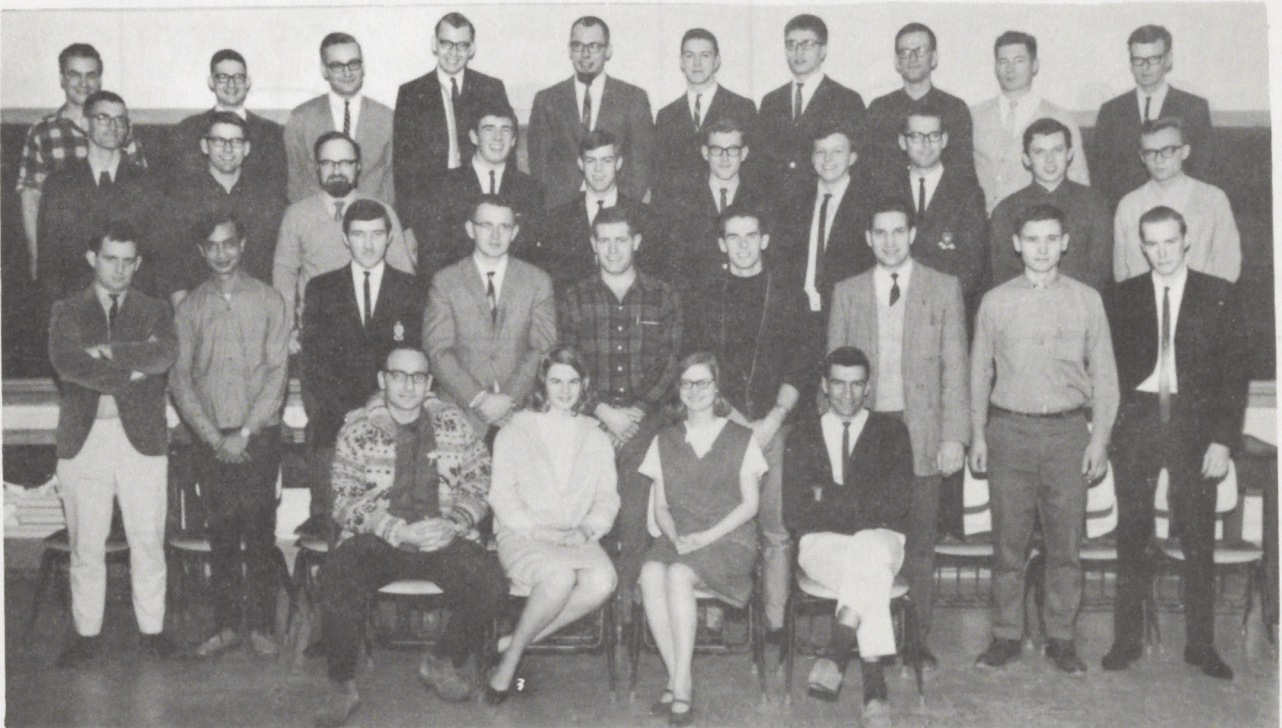


## FACULTY



Back Row, L. to R.: F.F.Langford, W.K.Braun, L.C.Coleman, T.E.W.Nind,  
N.C.Wardlaw, K.B.S.Burke, W.G.E.Caldwell, M.R.Stauffer.  
Front Row, L. to R.: E.Wright, A.R.Byers, R.F.Palmer, J.Anderson-Thomson.  
Missing: W.O.Kupsch.

## ORE GANGUE



Back Row, L. to R.: Al Ludwig, Ron McIntosh, Mo Lindsay, Tony Speed, Ron Brown,  
Ken Statham, Bernie Bintner, Wayne Kipling, Dave Bohun, Dale Rask.  
3rd Row, L. to R.: Ken Bohrsen, Bill Smyth, Jim Sharp, Pete Oliver, Ray McLean,  
Barry Finlayson, Darryl Myhr, Gerald Bidwell, Joe Korol, Al Steward.  
2nd Row, L. to R.: Bill Gaskarth, Moni Hoque, Ross McLean, Jack Wyder,  
Tony Spooner, Jim Popowich, Al Petryk, Frank Wormsbecker, Dwight Streeton.  
Front Row, L. to R.: George Goldak, Jeanne Gonnason, Marilyn Filyk, Larry Nagy.







# CONFERENCE - EDMONTON

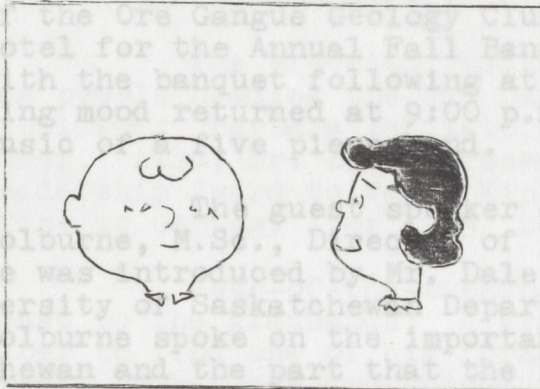
The Second Annual Western Inter-University Geological Conference was held at Edmonton this year. The last weekend in November, 30 keen Ore Gangue members, wives and professors boarded a chartered bus bound for Edmonton. The theme of the Conference this year was "Geological Information", with Dr. H. H. Beach and Dr. R. W. Fairbridge as the main speakers. Dr. A. R. Byers and Jack Wyder spoke as University of Saskatchewan representatives. The social activities included an informal get-together, and a banquet and dance. It is interesting to note that the Ore Gangue had the largest group attending, outside of Edmonton. antly enjoyable evening.

Ken Statham

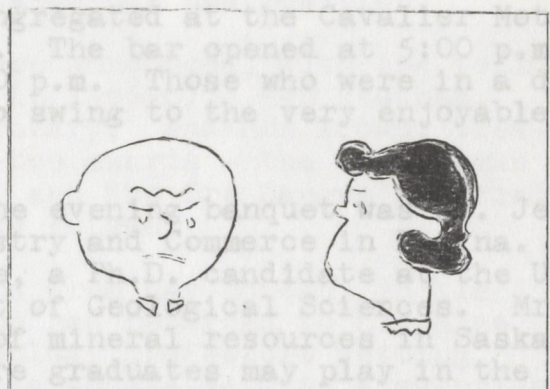
## Ore Gangue Fall Banquet

On Saturday, November 13, 1966, the illustrious members

of the Ore Gangue Geology Club congregated at the Cavalier Motor Hotel for the Annual Fall Banquet. The bar opened at 5:00 p.m. with the banquet following at 6:30 p.m. Those who were in a dancing mood returned at 9:00 p.m. to swing to the very enjoyable music of the live band.



"ALBERT SAYS THE STORK BRINGS BABIES"

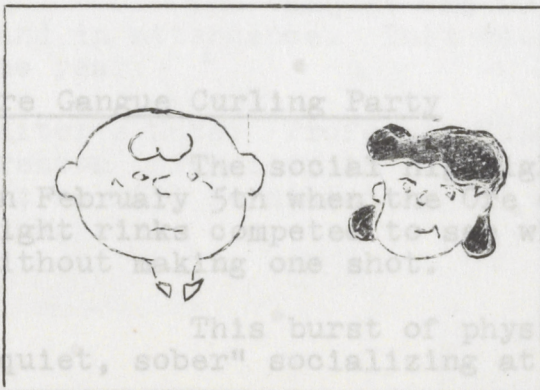


"ALBERT... YECCH... WHAT DOES HE KNOW ABOUT IT?"

Jim Popowich

## Ore Gangue Curling Party

The social highlight of the winter season was the Ore Gangue Curling Party on February 5th when the Ore Gangue Eight rings competed which could last without taking one shot.



"THERE'S ALBERT NOW..."

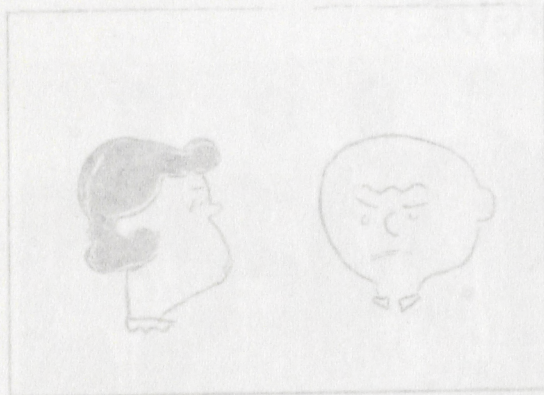


"...ALBERT"

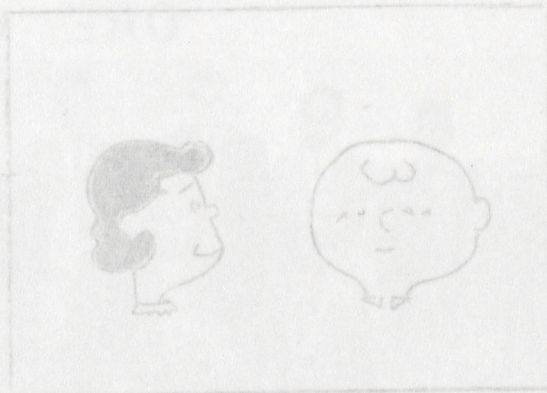


CONFERENCE - EDMONTON

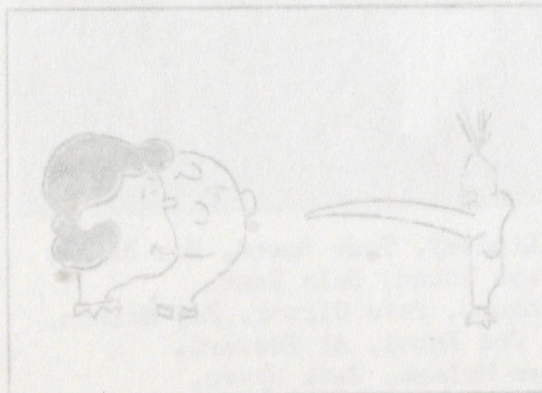
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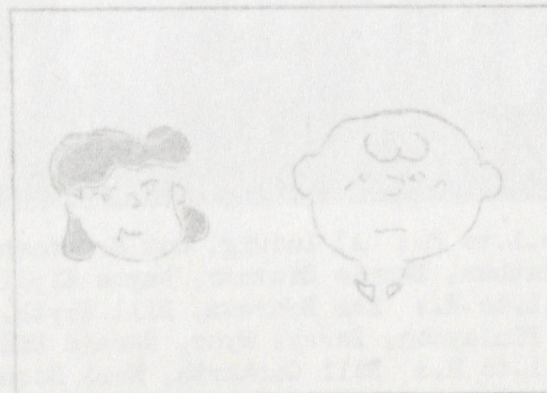
"ALBERT... YECCH... WHAT  
DOES HE KNOW ABOUT IT?"



"ALBERT SAYS THE STORK  
BRINGS BABIES"



"T... ALBERT"



"THERE'S ALBERT NOW."



AROUND THE  
COFFEE ROOM



seemed to be the needed SOCIAL REPORTS

### Ore Gangue Fall Party

The Ore Gangue's first social event of the varsity year was held on October 15th at Clinton Lodge. Approximately twenty couples attended the party which was very successful as a mixer for both old and new Ore Gangue members. The northwest corner of the dining room proved to be the area of the most activity throughout the evening. Refreshments were sold on the "honour" system and it is rumored that Wayne Kipling's account far exceeded that of anyone else. Dancing and lunch rounded out the bouyant enjoyable evening.

### Spring Banquet

Ken Statham

The Annual Spring Banquet was held at the Saskatoon Golf and Country Club this year. Professor T. E. W. Mind gave the main address, humorous, serious, and full of feeling. At the conclusion of the address, Jack Wyder, on behalf of the Ore Gangue, presented Professor Mind with a gift. We hope that

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The guest speaker of the evening banquet was Mr. Jerry Colburne, M.Sc., Director of Industry and Commerce in Regina. He was introduced by Mr. Dale Pyke, a Ph.D. candidate at the University of Saskatchewan Department of Geological Sciences. Mr. Colburne spoke on the importance of mineral resources in Saskatchewan and the part that the future graduates may play in the development of these resources.

Some of the questions you asked us. You know the students look at old exam papers. You should be changing the questions." "On no, not in geology," the professor answered, "we don't do that. All we do is just one."

Jim Popowichers!

The banquet was followed by a dance, with a good band in attendance. This wound up the social functions for the year.

### Ore Gangue Curling Party

The social highlight of the winter season took place on February 5th when the Ore Gangue held their curling party. Eight rinks competed to see which one could last for two hours without making one shot.

This burst of physical energy was followed by some "quiet, sober" socializing at Clinton Lodge. Drink and music







seemed to be the needed stimulant to loosen up the future Brier contenders. By midnight everyone was so loose that none of the twenty noticed the music had been shut off.

This retreat from the cold blasts of winter concluded at one of the local restaurants where Ray "Batman" McLean did an accidental imitation of the "Leap for Life".

Ron Brown

### Spring Banquet



The Annual Spring Banquet was held at the Saskatoon Golf and Country Club this year. Professor T. E. W. Nind gave the main address, humorous, serious, and full of feeling. At the conclusion of the address, Jack Wyder, on behalf of the Ore Gangue, presented Professor Nind with a gift. We hope that Professor Nind will remember the University of Saskatchewan with kind thoughts, and we wish him luck in his new position.

The election results were announced, with the following people heading the Ore Gangue in 1966-67: Ken Statham, President; Barbara Battiste, Secretary; and Ron Brown, Treasurer. Also, Dr. Byers presented two awards - the Ore Gangue Leadership Award to Wayne Kipling, and the Ore Gangue Memorial Prize in Geology (for 1965) to Ross McLean.

Joke-of-the-evening came from Ray McLean, in his toast to the graduands: A graduate had returned to his Alma Mater to find one of his former geology professors setting exams. "What are you doing?" the graduate said in a surprised tone. "Those are the same questions you asked us. You know the students look at old exam papers. You should be changing the questions." "Oh no, not in geology," the professor answered, "we don't do that. All we do is just change the answers!"

The banquet was followed by a dance, with a good band in attendance. This wound up the social functions for the year.

Editor's Note: Professor Nind is leaving to take a position at Trenton University in Peterborough. We are sorry to see him go; he will be missed by all of the Geology Department. Best of luck, sir.

"Hi, Mom!"



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# SPRING BANQUET



Cassaron, "Hardrock"  
Kipling, and the "SC"



...the hall for members,  
held as a warm-up for



...even on the 1st  
In closing...



...maker



"HI, MOM!"







## SPEAKERS' COMMITTEE REPORT

### SPORTS REPORT

The Ore Gangue Speakers' Committee sponsored the following speakers during the 1965-1966 university year:

The ganguesters again have shown themselves to be a force in the field of athletics. True, this force was a negative one, but all in all some enjoyable moments were spent in sports activities. During the year the skills of the members were applied to hockey, curling, and a cancelled broomball game which went into overtime at the Holiday House.

Dr. R. L. In hockey the success story is summed up in three ties out of eight starts. The chief drawback to winning ways was the proposed N.H.L. Expansion. Our players were forever being called up to try out for positions as assistant to the assistant water-boy. Our ranks were graced by such names as Bill "Sieve" Gaskarch, "Hardrock" Goldak, "Rocky" Ray McLean, "Falldown" Kipling, and the "Circle W". Other members of the team were Ray Olsen, Tony Spooner, Pete Oliver, Ken Statham, Larry Nagy, Bill Smyth, and Jim Popowich.

Dr. Hood discussed the state of geophysical research in the Geo. In late February a curling party was held for members, wives and dates. This curling party was held as a warm-up for party-party, which I was later told was a great success.

Mr. R. V. The annual faculty-grad vs. undergrad broomball game was cancelled because of bad ice. The night was not wasted, however, as the members went into training for upcoming beer-drinking contests. The cancellation was to the faculty-grad's advantage, as we undergrads would have been strengthened by the distraction of the female members of our team -- you cannot hit them, even on the ice!

In closing, a tip of the hat to all participants throughout the year.

Bernie Binstner

"RR-ROCKY"



Frank M. Wormsbecker







SPEAKERS' COMMITTEE REPORT

The Ore Gangue Speakers' Committee sponsored the following speakers during the 1965-1966 university year:

Mr. J. Drummond -- geologist, Socony Mobil Oil.

Mr. Drummond discussed reefal occurrences and their environment on the basis of a model situation with examples drawn from both present and past reefal occurrences.

Dr. R. L. Johnson -- geologist, Department of Mineral Resources

Dr. Johnson described the complex structures in a multiply-deformed Precambrian orogeny in Rhodesia. The structures developed include two systems of folds, metamorphic foliations, deformed pebbles, and a mantled gneiss dome.

Dr. P. Hood -- head of the magnetics division, Geological Survey of Canada.

Dr. Hood discussed the state of geophysical research in the Geophysical Survey of Canada with special emphasis on problems involving magnetic methods.

Mr. R. V. Tomkins -- vice-president, Tombill Mines Ltd.

Mr. Tomkins gave a talk on industrial minerals in general with particular emphasis on potash and phosphates and recent developments in these industries. He stressed the importance of the increasing demand for fertilizers as one of the major solutions to the growing world food shortage.

Bernie Bintner







# BREWERY TOURS AND HOCKEY GAMES



↑  
SMYTHIKINS



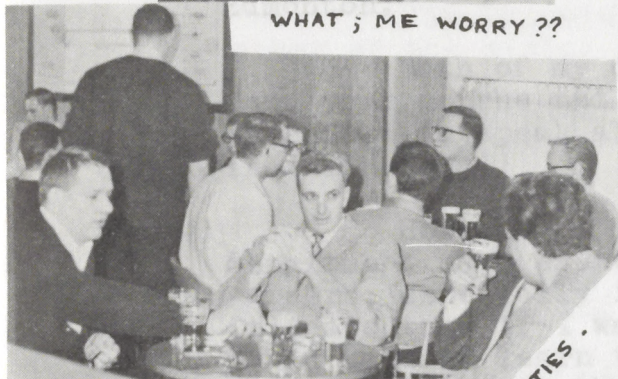
HERE'S TO YOU!



WHAT; ME WORRY??



MARILYN



AND OUR SIDE HAD 38% FEWER CAVITIES.



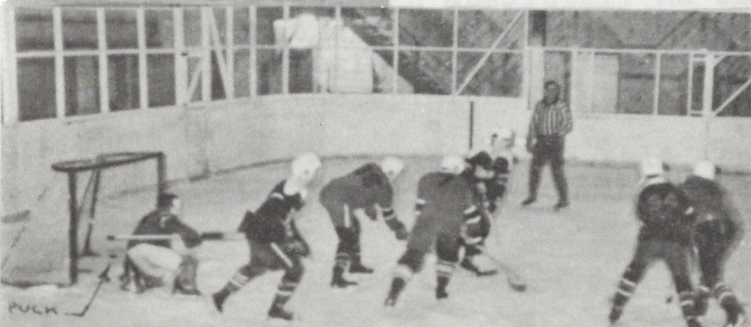
POOF!

oops!

GOTCHA!



FAITHFUL FANS!



FANCY SKATERS

AND ANOTHER GREAT SAVE BY  
"SHOT-OUT" BILL (ALMOST) .....







## Mining Engineers

### GRADUATES' REPORTS

## Geological Engineers

Lloyd Pitts, Frank Wormsbecker and I comprise this year's total gross product of the geological branch of the College of Engineering.

Frank has accepted a permanent job with Socony Mobil Oil production department in Calgary.

Lloyd has a temporary position on a groundwater project which will keep him around Moose Mountain for most of the summer.

I am joining Socony Mobil's production department in Edmonton.

Both of my class-mates have completed a really tough four year course and I think they deserve a pat on the back. (I refuse to speak about myself on the grounds of possible self-incrimination!)

However, I must say that the faculty of the geological department have exerted a great influence on my choice of careers, especially in this last year. Dr. Langford seemed to indicate that if I wanted to make my living out of rocks I would have to learn to cook them or something because I couldn't do much else with them. Dr. Caldwell was of the opinion that my knowledge of stratigraphy left something to be desired, namely Geology 231 and Geology 332 (all over again). The idea of taking mining engineering was lurking in the back of my mind last year and as a result of that, I attempted to take a mining class from Professor Palmer. Toward the end of this term I found that as far as my mining class was concerned, I didn't know whether I was coming or going. As far as Professor Nind's class in Sedimentary Aquifers is concerned, it was suggested in a very subtle manner that I should steer clear of hydrology if I didn't want to be up to my neck in water.

Therefore I decided to take a job in reservoir engineering. This is perhaps the best decision because, since I have taken absolutely no classes (not even fluid mechanics) that are applicable to reservoir engineering, I will be able to begin work with a perfectly open and empty mind, unbiased by the opinions of the various professors.

As I have said, the faculty have had a considerable influence on my choice of careers.

David A. Bohun







Last year's field trip was pretty quiet, except for one  
Mining Engineers

Mining engineering is at an all time high. The number of graduands has increased 600 percent in one short year. This year there will be six. Yes, believe it or not, six!

There's Sam, (Ron Wesolowski, for short), who considers himself the world's boon to women -- his favorite expression is "She wants a man." He's signed on with Saskatoon's Sanitary Engineers. He tells me he will be riding shotgun on the garbage truck.

Then we have Smythikins. He's the pair of eye balls you see walking through the Geology Department from time to time. He tells me he's going to get a job as a mail carrier between Saskatoon and Wilkie. That's so that he can kill two birds with one stone -- (he has one in both places).

Jim Popowich, better known as Gentleman Jim, is another of the mining graduates. He's the lush of the crowd.

Moe Lindsay, the quiet, reserved, gentle, intelligent, clever, brilliant and slim one, is the man most likely to succeed. (He's also the one who wrote this.)

Then there's good Al Ludwig, everybody's pal. He's a real nice guy but a terrible card player. He's got two big boys at home and I guess it took too much out of him.

Terrance Zane Wowk graduates this year too. With a name like that who needs a degree. But Terry is not one to fall back on such laurels -- he said he wanted to be an engineer and he's going to be an engineer. And he did it in eight short years.

Well there they are -- 6 lowlies. And it doesn't stop there, six more are in third year namely -- Don (Herman) McTavish, Barry (Slim) Nicholson, Al Steward, Ray Olsen, Bernie Bintner, and Tony Speed. All these fine young gentlemen are going on a wild, poker playing, boozing and not to mention intellectual field trip this spring. One word of caution fellows -- be sure and take lots of Scotch if you expect a half decent mark.

Oh! I almost forgot we have a man mastering in Mining this year, Menno (Coubasair) Friesen. It seems kind of crazy to master but if good ole Menno can wash through 2 more years of B.S. -- all the more power to him. Good luck, Menno -- you'll need it.







ELECTIONS - 1966

Last year's field trip was pretty quiet, except for one incident on the train to Lynn Lake. Our professor picked a fight with a nice congenial CN employee. Can't understand why.

Last year's graduating class, Stan Johnson, is employed at Craigmont, B. C., and if he ever turns in his thesis he'll be able to join the Association of Professional Engineers.

Unfortunately, Mike Fry in third year last term didn't quite make it back this year. But I hear he will be back this fall. Good luck Mike.

Julius Sulma, fatally injured in a car accident last summer, was a shocking loss to our club. I know I speak for all the Ore Gangue in extending our deepest sympathy to Mr. and Mrs. Sulma.

Wayne "Showboat" Kipling was very active at university this year. Concerning Ore Gangue, he efficiently handled the duties of Secretary and claimed most Mo Lindsay in the photo contest. He held the infamous position of Coffee Manager and, by selecting only the choicest (?) brands of coffee, Wayne made that position even more infamous. Remarkably fluent in both Russian (?) and French (?) Wayne has accepted a position in Montreal with Cominco, and, so that he will not be lonely, Definition of a GEOPHYSICIST Kipling with him.

A geophysicist is a person who passes as an exacting expert on the basis of being able to turn out with prolific fortitude infinite strings of incomprehensible formulae calculated with micrometric precision from vague assumptions which are based upon debatable figures taken from inconclusive experiments carried out with instruments of problematic accuracy by persons of doubtful reliability and questionable mentality for the avowed purpose of annoying and confounding a hopeless chimerical group of fanatics known as geologists who are themselves the lunatic fringe surrounding the hard working mine operator. The Economic Geologist defined: the one who tells you why it isn't there, once you haven't found it.

The structural Geologist: one who considers the mapping at long length and if it does not fit, folds it; if it does not fold, faults it; and if it doesn't fault, . . . . . forgets it.







Wayne Kipling, Larry Nagy, and Dwight Streeton were the sole fourth year artsmen in geology this term. For each of us the year was eventful and even Mr. Kipling got a little work done now and then. That we were brothers to the engineers was often demonstrated by the demand for our Saturday morning lecture notes and Printing Services must be truly indebted to us for the business they subsequently received. But, invaluable as we were to the education of the miners and geophysicists, our greatest individual achievements lay in other fields and included spilling a glass of beer on Bill Smyth during the brewery tour, supervising Allan Petryk while he crawled around on the floor clubbing Silverfish to death with his geological hammer, and arguing with Dave Bohun on the merits of sex, menthol cigarettes and insurance policies.

Wayne "Showboat" Kipling was very active at university this year. Concerning Ore Gangue, he efficiently handled the duties of Secretary and claimed most of the prizes in the photo contest. He held the infamous position of Coffee Manager and, by selecting only the choicest (?) brands of coffee, Wayne made that position even more infamous. Remarkably fluent in both Russian (?) and French (?) Wayne has accepted a position in Montreal with Cominco, and, so that he will not be lonely, he may be taking a Mrs. Wayne Kipling with him.

Larry "Flashbulb" Nagy has also accepted a position with Cominco but he and his family will be going to Trail. In addition to being Treasurer of Ore Gangue, Larry's extracurricular activities were centered around his baby boy and brewing wine. Remarkable things are expected from both of these interests.

Concerning myself, well, I found that my classes kept me fairly busy this year, but I'm going to take life easy this summer and work on a Master's thesis. Dr. Wardlaw has informed me that I have fourteen hundred feet of potash drill core to play with so that may keep me out of mischief for a few weeks or months or years. Any farmer wanting fourteen hundred feet of tasty cow salt may have some for the minimal sum of one dollar per pound.

Dwight H. Streeton







# ELECTIONS - 1966



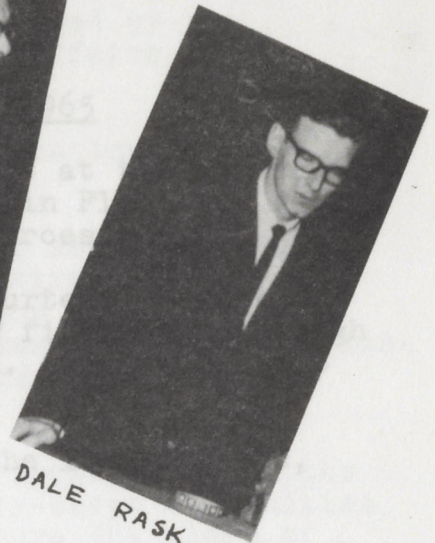
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PRES. (66-'67)



BARB BATTISTE  
SEC. (66-'67)



RON BROWN  
TREAS. (66-'67)



DALE RASK



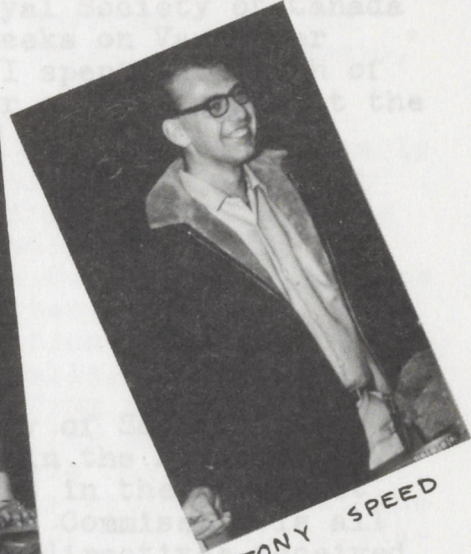
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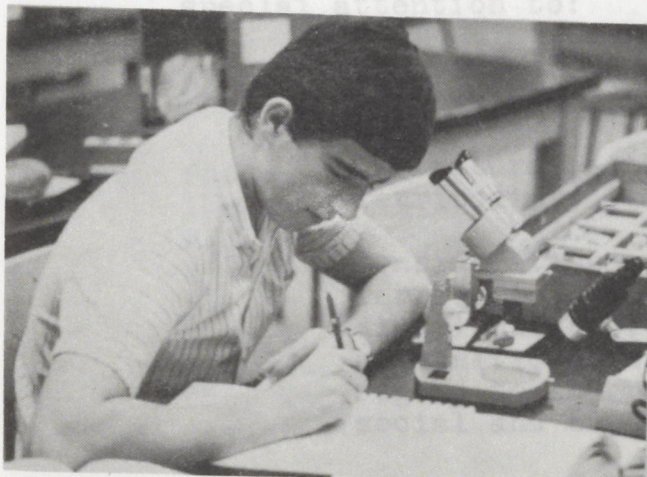
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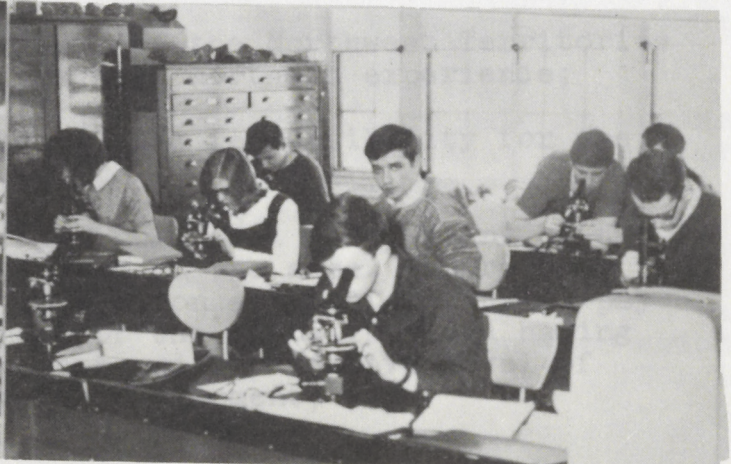
MARILYN FILYK



TONY SPEED



A BUDDING PALEONTOLOGIST



OPTICAL MINERALOGY







## FACULTY ACTIVITIES

### Dr. A. R. Byers - Summers 1964, 1965

Most of the summer of 1964 was spent at the University completing a report on the geology of the Flin Flon area for the Saskatchewan Department of Mineral Resources.

At the end of June, through the courtesy of Chevron Standard Oil Company, I attended a five-day field trip through the southern Canadian Rockies and Foothills. The field trip was directed by Dr. C. D. A. Dahlstrom.

The month of August was spent at the 1000 Islands, near Gananoque, Ontario.

In June, 1965, I attended the Royal Society of Canada meetings at Vancouver and spent several weeks on Vancouver Island and in central British Columbia. I spent the month of July at the 1000 Islands and the remainder of the summer at the University.

### Dr. W. O. Kupsch

As of July 1, 1965, the University of Saskatchewan granted me a year's leave-of-absence to join the Advisory Commission on the Development of Government in the Northwest Territories. To give you an idea what this Commission is all about, let me quote the following from the directives received from the Honourable Arthur Laing, Minister of Northern Affairs and National Resources in which the Commission was asked to give special attention to:

"The view of residents of the Northwest Territories and other Canadians with northern experience;

"The nature of the federal responsibility for the Territories;

"Consideration of the political development of the Territories contingent on the size, nature and distribution of population and its ability to pay a significant share of the costs involved having regard to the present and prospective level of social and economic development;







The Commission is expected to report its findings by September. "Existing forms of government as defined by the Northwest Territories and Northern Affairs and National Resources Acts;

"Previous proposals affecting constitutional structure."

Dean A. W. R. Carrothers, Professor and Dean of Law at the University of Western Ontario, is Chairman of the Commission and the two other members are John H. Parker, Mayor of Yellowknife, and Jean Beetz, Professor of Constitutional Law, of the University of Montreal. I am the Executive Director and Secretary of the Commission. In August and the early part of September, 1965, the Commissioners and their staff visited thirty-seven communities throughout the Northwest Territories to secure the views of residents on the most appropriate form of government in the Northwest Territories in the light of the political, economic, fiscal, and social prospects.

Travel was by chartered aircraft and a total of nearly 7,000 miles was flown within the boundaries of the Northwest Territories. Extensive publicity concerning the trip and the hearings was given by a reporter from Canadian Press and a representative of the Northern Service C.B.C. Verbatim minutes of all hearings were kept by a court reporter and several persons were involved in the required translation services. The hearings were held in schools, community halls, warehouses, and even out of doors. The attendance ranged from as many as 100 seated in the school at Rankin Inlet to as few as eight lying in the grass along the banks of the Mackenzie River at Fort Wrigley. After conclusion of the trip it is estimated that the Commission Members had talked to about 20% of the adult population of the Northwest Territories.

Early in November, Mayor Parker and I were in the Yukon Territory to observe the operations of the Territorial Government there and to discuss related problems with the Commissioner of the Yukon. Public hearings of the Commission were held in Ottawa from November 15-19 of last year, and by the middle of February 1966, as many as 42 briefs submitted at hearings and 99 submissions received in the Commission's office were on file. The Commission plans to return to the Arctic for ten days in the beginning of March to see conditions of life in the Northwest Territories in winter and to visit communities which they were prevented by weather from seeing during their tour in August 1965.







The Commission is expected to report its findings by September, 1966, in time for me to be back in Saskatoon to start teaching and doing research in geology instead of dabbling in politics.

Summer 1964 was spent at the Mineralogical Institute, University of Marburg, Germany, with the object of studying the evaporite rocks of the Zechstein basin. I was able to examine a representative sample of the Zechstein succession during visits to three mines and on field excursions in the Harz Mountain area with Professor Richter-Berburg and Drs. Kühn and Lohse. These field excursions were Dr. W. G. E. Caldwell visiting.

During the summer of 1964, I taught Geology 101 at Summer School, and during the summer of 1965, I initiated a new class at Summer School -- Geology 105: The Development of Life in Time. Response to the new class was gratifying. With people working on these deposits, to get an up-to-date impression of European work in the field.

In 1965, following the field camp, an institution about which little can be published, I spent the better part of the summer on projects related to the Saskatchewan potash deposits. I also Professor T. E. W. Nind to see on the surface the projection of what I had been looking at in the field.

The summer of 1964 seems a long time ago now, and it is hard to recall any but a few outstanding events -- a wild drive in my swimming trunks from Waskesiu to Prince Albert with my wife in the back of the car, and the arrival of our third child later that evening -- a move to a larger home in Saskatoon (a wasted effort in a way, in view of the impending departure of the Ninds en famille) -- a brief visit from England by my sister-in-law. Presumably between these happenings, and some gasps for air, there was time to polish off a couple of papers in groundwater hydrology, as these were subsequently published. In fact I distinctly remember typing one of them at 3:00 a.m. With a howling baby balanced on one knee.

The Petroleum Society of the C.I.M. asked me to give a course in petroleum production engineering in Calgary, which occupied part of this last summer. Soul-searching over whether or not to make a move seemed to use up many of the hours, and a pleasant three weeks were spent enjoying Banff and its surroundings. No conferences attended, no papers prepared or presented, but a good deal of useful time was spent in reading and reflection on such topics as hydrology, rock mechanics, elementary calculus, information theory, and probability theory. The trouble is that the more I try to find out, the more apparent it is how much I don't, but need to, know.

There was one other activity of mine during the past summer that should be of some interest to the department. Early in May, Dr. Arnold and I paid visits to several laboratories in the eastern United States to see a number of electron microprobe







analyzers in operation. Late in December, the department received a major equipment grant from the National Research Council which should enable us to have a microprobe in operation by Summer 1964 was spent at the Mineralogical Institute, University of Marburg, Germany, with the object of studying the evaporite rocks of the Zechstein basin. I was able to examine a representative sample of the Zechstein succession during visits to three mines and on field excursions in the Harz Mountain area with Professor Richter-Berburg and Drs. Kühn and Lohse. These field excursions were instructive and interesting. Visiting exposures with people who know the geology of a region thoroughly, from long association, is very rewarding and enjoyable. It is also a good way to see the country and come to terms with the language. While in Germany, I was able to accumulate a mass of data relating to evaporite deposits and, by association with people working on these deposits, to get an up-to-date impression of European work in the field.

In 1965, following the field camp, an institution about which little can be published, I spent the better part of the summer on projects related to the Saskatchewan potash deposits. I also visited the Devonian outcrop area of Manitoba to see on the surface the projection of what I had been looking at in the subsurface. the site of Chisleland Iron Mines' magnetite deposit.

Plant tour at Interprovincial Steel and Pipe, Regina, and discussion with senior personnel of this Company's facilities and potential.

#### Dr. L. C. Coleman

During the past two summers most of my time has been spent on a program of detailed geological mapping and of geochemical studies at Hanson Lake for the Saskatchewan Research Council. This program, which was started during the summer of 1962, is providing a Ph.D. thesis for Bill Gaskarth. Bill has been working on it each summer since 1963 and, during the past two summers, others who have worked at Hanson Lake as junior assistants are Don Hersak, Ken Statham, Ron Brown, Jim Udofia and Darryl Myhr.

The first publication resulting from this work appeared late in 1965 as Saskatchewan Research Council Geology Division Circular 2 -- Preliminary Report on the Geology and Geochemistry of the Hanson Lake Area, Saskatchewan, Part I: Bertrum Bay Sheet. Several other preliminary reports are in preparation and should be published during this year.

There was one other activity of mine during the past summer that should be of some interest to the department. Early in May, Dr. Arnold and I paid visits to several laboratories in the eastern United States to see a number of electron microprobe







analyzers in operation. Late in December, the department received a major equipment grant from the National Research Council which should enable us to have a microprobe in operation by sometime next fall. From what Dr. Arnold and I saw during our tour of inspection and from what we have learned since, this should open up a great number of interesting fields of investigation to members of and students in this department. trip to see the volcanics of the Yellowstone region. As well as providing a whole new conception of volcanic rocks, it gave lots of opportunity to climb mountains and roll boulders on the laggards below.

Professor R. F. Palmer

Course revisions, budget preparation, and Departmental space alterations kept me on campus except for the following short excursions:

1964 Associated with an investigation for the Department of Mineral Resources:

One-day tour of the Choiceland area, with the late Dr. J. B. Mawdsley as guide, examining drill hole locations and general topography at the site of Choiceland Iron Mines' magnetite deposit.

Plant tour at Interprovincial Steel and Pipe, Regina, and discussion with senior personnel of this Company's facilities and potential.

Two-day visit to the Algoma Steel Corporation, at Sault Ste. Marie and Wawa, Ontario. Primarily intended for the study of recent steel industry developments, this permitted an underground tour to observe Algoma's aerial ropeway, and its application of the Grangesborg method for high-speed, automated locomotive haulage.

1965 Associated with interviewing potential staff members:

Travelled by car to Boulder, Colorado and Santa Fe, New Mexico.

The most interesting features seen were the Black Hills of South Dakota, the University of Colorado campus at Boulder, and the operations of Climax Molybdenum Corporation in Colorado. The most interesting features seen were the Black Hills of South Dakota, the University of Colorado campus at Boulder, and the operations of Climax Molybdenum Corporation in Colorado. The most interesting features seen were the Black Hills of South Dakota, the University of Colorado campus at Boulder, and the operations of Climax Molybdenum Corporation in Colorado.







Dr. F. F. Langford

Last summer having loaded the family aboard the car I pushed it down to the Maritimes and back, to teach summer school at the University of New Brunswick. This provided a good opportunity to see the geology of this area, and learn how a misfortune of geology has blighted its whole economic development. The preceding year was highlighted by an NSF sponsored trip to see the volcanics of the Yellowstone region. As well as providing a whole new conception of volcanic rocks, it gave lots of opportunity to climb mountains and roll boulders on the laggards below.

Dr. W. K. Braun

Summer work for 1966: Summer school; microfossil studies, mainly of Paleozoic sediments of the Northwest Territories; some also involving the ostracod faunas of the Quebec lowlands.

Dr. K. B. S. Burke

Summer 1964

My initial activity in the summer of 1964 was to take part in a seismic survey of the Stenen magnetic anomaly in cooperation with the Department of Mineral Resources and Saskatchewan Research Council. This survey was unfortunately restricted due to the cut in spending imposed by the new Saskatchewan government and only limited results were obtained.

In July several shots detonated in the Thompson Mine Shaft in Manitoba were recorded at sites along the Hanson Lake Road in an attempt to determine the crustal thickness in this area. This was my first experience of the forested part of Saskatchewan and the 'tenacity' of northern mosquitoes.

After a quick trip to visit the Geological Survey of Canada induced polarisation crew in southern Manitoba, I made my first trip across Canada by train. The vast dimensions of this country were at last impressed on my 'jet age' mentality. I then travelled to England and spent an enjoyable few weeks visiting relatives and friends.

Summer 1965

I spent most of the summer of 1965 preparing for and taking part in the Hudson Bay crystal project sponsored by the Department of Mines and Technical Surveys. Underwater explosions detonated by the M.V. Theron were recorded by crews from the Dominion Observatory, Geological Survey of Canada, S. S. Hudson and five Canadian universities at various stations in Bay. The Saskatchewan crew occupied a site on the shore of the Bay west of Churchill. We were fortunate in obtaining the services of the U.S.A.F. who transported our  $1\frac{1}{2}$  tons of equipment







and food in one trip with their troop carrier helicopter. The gales, fog and cold damp nights reminded me of summer camping holidays in England. The last week in June I went up to Coronation Gulf and did exploration work. The rest of my summer was spent conducting gravity surveys along the Hanson Lake Road and recording ammonium nitrate blasts in the Spiritwood area. I did not come home till the beginning of September and then packed up and came to Saskatchewan in time to shoot a few geese.

#### Dr. W. K. Braun

Summer work for 1966: Summer school; microfossil studies, mainly of Paleozoic sediments of the Northwest Territories; some also involving the ostracod faunas of the Quebec lowlands. Now he is working on a study of experimental models, as well as teaching introductory geology and structural geology. (The students of his structural geology class strongly suspect that his children have no plasticine or "silly putty" to play with -- Dr. Stauffer

#### Dr. M. W. Steeves

In August 1964, Dr. and Mrs. Steeves attended the 10th International Botanical Congress at Edinburgh, Scotland, and later were fortunate in being able to collect the middle Devonian vascular land plants, Rhynia and Asteroxylon from the type locality of the Rhynie Chert Zone, near Rhynie, Aberdeenshire, Scotland. We wish to welcome Dr. Stauffer to the University of Saskatchewan, and especially to the Department of Geological Sciences.

#### Mr. John Anderson-Thomson

The first job on arriving back to Yellowknife from Montana in May 1964 was to survey a jail site for the new Northwest Territories Jail. This was followed by a survey for a new Public School for Yellowknife and a preliminary survey of several sites for a new Hospital. Dr. Stan Malouf, one of the original members of the Ore Gangue came up about the first of July and with Stan I spent two weeks geologizing in the vicinity of Indian Mountain Lake, north of Fort Reliance, and around Wilson Island and Sulphur Bay on Great Slave Lake, the investigation of course was related to lead-zinc deposits. I did some staking for his company later on in August. Just when I was all packed ready to come back to Saskatoon in September there was a rush call for a Vertical and Horizontal Control for Yellowknife and district and that took till the first week in November to get cleaned up.







In the spring of 1965 I completed the survey and laid out the foundations and rock work for the New Hospital. The last week in June I went up to Coronation Gulf and did exploration work and a survey of fifty claims on the mountains along the Aniahuk River, interesting work and very good values in gold. We had three days of 95° in the shade (and no shade). I did not come home till the beginning of September and then I packed up and came to Saskatchewan in time to shoot a few geese.

(b) "Of great theoretical and practical importance. . . ." Interesting to me . . .

(c) "While it has not been possible to evaluate . . ." The experiments didn't work out, but I figured

A new addition to the Faculty this year was Dr. M. R. Stauffer. He comes to us from Australia, where he completed his Ph.D. with a thesis on the structure of multiple deformation in rocks. Now he is working on a study of experimental models, as well as teaching introductory geology and structural geology. (The students of his structural geology class strongly suspect that his children have no plasticene or "silly putty" to play with -- Dr. Stauffer uses it all in experiments. This summer Dr. Stauffer plans to work on the structural geology of the Hanson Lake area.

(b) "Presumably at longer . . ." I didn't take the time to  
Dr. Stauffer, who was raised in Alberta, received his B.Sc., and M. Sc., from the University of Alberta. Perhaps this is why he likes our campus -- at least the building design. Asked about hobbies, he commented, "I am married and have three children; therefore, I have no hobbies." (We did discover that he has an aversion to the combination of beer and ice cream.) We wish to welcome Dr. Stauffer to the University of Saskatchewan, and especially to the Department of Geological Sciences.

3) (a) "It is suggested that. . . ." I think.  
"It is believed that. . . ."  
"It may be that. . . ."

(b) "It is generally believed that . . . ." A couple of other blokes think so too.

(c) "It is to be hoped that this work will stimulate further effort in this field." This paper isn't very good, but neither are any of the others on this miserable subject.







4) used in ACKNOWLEDGMENTS:

GLOSSARY OF SOME FREQUENTLY EMPLOYED TERMS IN  
GEOLOGICAL LITERATURE

1) used in INTRODUCTIONS:

- |     |                                                                  |                                                                                              |
|-----|------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| (a) | "It has long been known that. . . "                              | I haven't bothered to look up the original reference                                         |
| (b) | "Of great theoretical and practical importance. . . "            | Interesting to me . . .                                                                      |
| (c) | "While it has not been possible to evaluate conclusively . . . " | The experiments didn't work out, but I figured I could at least get a publication out of it. |

2) used in RESULTS:

- |     |                                                         |                                               |
|-----|---------------------------------------------------------|-----------------------------------------------|
| (a) | "Typical results are shown . . . "                      | The best results are shown.                   |
| (b) | "Presumably at longer times . . . "                     | I didn't take the time to find out.           |
| (c) | "These results will be reported at a later date . . . " | I might possibly get around to this sometime. |
| (d) | "The most reliable values are those of Jones . . . "    | He was a student of mine.                     |

- 3) (a) "It is suggested that..." I think.  
      "It is believed that..."  
      "It may be that..."

- |     |                                                                                 |                                                                                          |
|-----|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| (b) | "It is generally believed that . . . "                                          | A couple of other blokes think so too.                                                   |
| (c) | "It is to be hoped that this work will stimulate further effort in this field." | This paper isn't very good, but neither are any of the others on this miserable subject. |







4) used in ACKNOWLEDGMENTS:

"Thanks are due to James Smith for assistance with the experiments and to John Brown for valuable discussions."

Smith did the work while Brown explained what it meant.

- Prof. R. A. Raphael, G.S.S.A. News Bull., vol. 5, no. 3, (Jul. 1962).



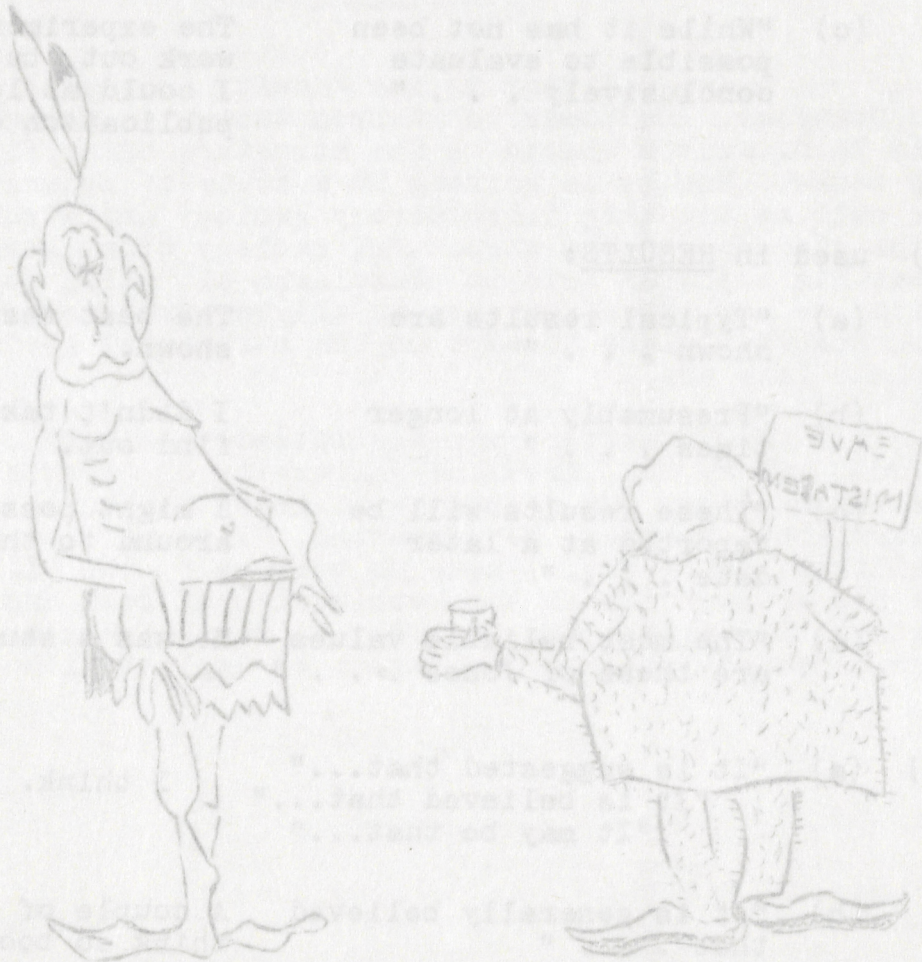


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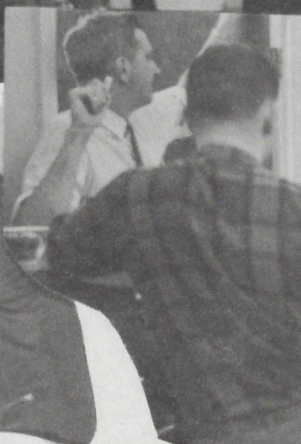
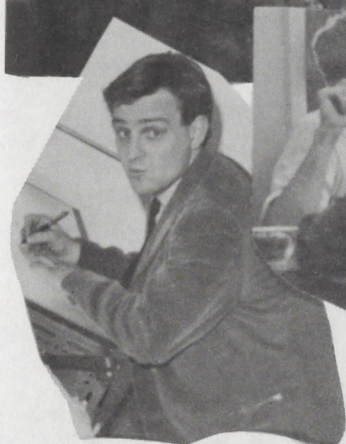
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- Prof. R. A. Raphael, G.S.S.A. News Bull.,  
vol. 5, no. 3, (Jul. 1962).





# CANDID CAMERA



THE EDITORS

OF COURSE WILSON WILL WIN



SYATIGRAPHY ★!!

BARB!?



--SEE WHERE I CUT MYSELF THIS MORNING!



MRS. SINS  
TYPIST-IN-CHIEF











